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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/629,717	BAE ET AL.
	Examiner	Art Unit	
	JEREMY DUFFIELD	2427	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 October 2008</u>.

2a) ☐ This action is **FINAL.**　　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-37</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-37</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Miscellaneous

1.   Note: Examiner art unit has changed from 2623 to 2427.

Response to Arguments

2.   Applicant's arguments filed 8 April 2008 have been fully considered but they are
not persuasive.

In response to Applicant's arguments regarding "the predetermined data
stream...or the media data", Page 16, lines 4-6, the Examiner respectfully
disagrees. Claim 4 states three alternative types of information, a reference
clock value, a multimedia document, <u>or</u> media data. Regardless, the RTSP
specification teaches defining all three types of information. The reference clock
value type is defined using a time Range field (Page 34; Page 52, Sec. 12.29),
RTP-Info field (Page 53, Sec. 12.33), Date field (Page 49, Sec. 12.18), and/or an
Expires field (Page 49, Sec. 12.19). The multimedia document scheduled for a
future time, media data, and reference clock value types are all defined using the
presentation description which is used for the Content-Type field (Page 7; Page
30, Sec. 10.2; Page 49, Sec. 12.16; Page 52, Sec. 12.29; Page 79, Sec. C.1.1;
Page 80, Sec. C.1.2, C.1.3).

3.   Applicant's arguments with respect to claims 1, 6, 16, 17, 22, 32, and 33 have
been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 17-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

        Claims 17-32 fail to fall within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

        Claims 33-34 fail to fall within a statutory category of invention. They are directed to the signal itself. They are not a process occurring as a result of executing a program in the signal, a machine programmed to operate in accordance with a program in the signal, nor a manufacture structurally and functionally interconnected with a program in the signal in a manner which enables a program in the signal to act as a computer component and realize its functionality. They are also clearly not directed to a

composition of matter. Therefore, they are non-statutory under 35 USC 101. In this case, the claimed "data structure" can be construed as a signal carried on a carrier wave, e.g. Specification at Para. 64.

Claim 35 is drawn to functional descriptive material recorded on a computer-readable recording medium. Normally, the claim would be statutory. However, the specification, at Para. 64, defines the claimed computer-readable recording medium as encompassing statutory media such as a "ROM", "CD-ROM", etc, as well as *non-statutory* subject matter such as "carrier waves".

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.

Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to

a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

7.   Claims 1-3, 5-8, 10-19, 21-24, 26-32, and 35-37 are rejected under 35 U.S.C.

103(a) as being unpatentable over Piotrowski (US 2002/0188959) in view of Blackketter

(US 6,415,438).

        Regarding claim 1, Piotrowski teaches an apparatus for transmitting

multimedia broadcasting (Fig. 1, el. 19), comprising:

        a reference clock generator/transmitter, which generates and transmits a

reference clock value of real-time multimedia broadcasting (Para. 25, 31-38);

        a multimedia document generator/transmitter, which generates and

transmits a multimedia document scheduled at the generated reference clock

value, i.e. web server generates and transmits scheduled SMIL documents

(Para. 19, 29-38); and

        a media data generator/transmitter, which generates and transmits media

data used to render the generated multimedia document, i.e. web server

generates and transmits supplemental multimedia information which includes

audio and video (Para. 24, 29-38).

        Piotrowski does not clearly teach the reference clock value is a current

time value.

        Blackketter teaches a reference clock generator/transmitter, which

generates and transmits a reference clock value, which is a current time value of

multimedia broadcasting and using the time to schedule multimedia, i.e. the

current date and time can be periodically broadcasted to the receiver unit (Col. 5, lines 5-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Piotrowski to include generating and transmitting a reference clock value which is a current time value of real-time multimedia broadcasting, as taught by Blackketter, for the purpose of eliminating the need for a trigger script and delay loop by using wall-clock time with a trigger transmitted before its associated execution time (Blackketter-Col. 2, lines 39-50).

Regarding claim 2, Piotrowski (Para. 31-38) in view of Blackketter teaches the multimedia document is a synchronized multimedia integration language (SMIL) document.

Regarding claim 3, Piotrowski (Para. 31-38) in view of Blackketter (Col. 5, lines 5-40) teaches the reference clock generator/transmitter, the multimedia document generator/transmitter, and the media data generator/transmitter transmit the reference clock value, the multimedia document, and the media data, respectively, in the form of a predetermined data stream, i.e. transmitting the current date and time, the SMIL document, and the linked media.

Regarding claim 5, Piotrowski in view of Blackketter teaches the reference clock generator/transmitter transmits the reference clock value, which increases

by a predetermined value, whenever the reference clock value increases by the

predetermined value, i.e. periodically broadcasting the current time to the

receiver (Blackketter-Col. 5, lines 21-33).

Regarding claim 6, Piotrowski teaches an apparatus for receiving

multimedia broadcasting (Fig. 1, el. 11, 12, 14), comprising:

a reference clock receiver, which receives a reference clock value of real-

time multimedia broadcasting, i.e. receiving a time code embedded in the media

(Para. 25, 31-38);

a multimedia document receiver/storage, which receives and stores a first

multimedia document, Note: the multimedia document must be at least

temporarily stored while it is being analyzed (Para. 19, 25, 28, 31-38, 45);

a media data receiver/storage, which receives and stores first media data,

i.e. media data may be recorded (Para. 19, 25, 28, 31-38, 45); and

a multimedia document renderer, which when the first multimedia

document is scheduled at the reference clock value and first media data is a

rendering material used to render the first multimedia document, renders the first

multimedia document using the first media data (Para. 30-38).

Piotrowski does not clearly teach the reference clock value is a current

time value.

Blackketter teaches a reference clock generator/transmitter, which

generates and transmits a reference clock value, which is a current time value of

multimedia broadcasting and using the time to schedule multimedia, i.e. the current date and time can be periodically broadcasted to the receiver unit (Col. 5, lines 5-40); and a multimedia document receiver/storage, which receives and stores a multimedia document, i.e. prefetching web pages using triggers (Col. 6, line 60-Col. 7, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Piotrowski to include generating and transmitting a reference clock value which is a current time value of real-time multimedia broadcasting, as taught by Blackketter, for the purpose of eliminating the need for a trigger script and delay loop by using wall-clock time with a trigger transmitted before its associated execution time (Blackketter-Col. 2, lines 39-50).

Regarding claim 7, Piotrowski (Para. 31-38) in view of Blackketter teaches the multimedia document is a synchronized multimedia integration language (SMIL) document.

Regarding claim 8, Piotrowski (Para. 31-38) in view of Blackketter (Col. 5, lines 5-40) teaches the reference clock receiver, the multimedia document receiver/storage, and the media data receiver/storage receive the reference clock value, the first multimedia document, and the first media data, respectively, in the form of a predetermined data stream, i.e. transmitting the current date and time, the SMIL document, and the linked media.

Regarding claim 10, Piotrowski in view of Blackketter teaches the reference clock generator/transmitter transmits the reference clock value, which increases by a predetermined value, whenever the reference clock value increases by the predetermined value, i.e. periodically broadcasting the current time to the receiver (Blackketter-Col. 5, lines 21-33).

Regarding claim 11, Piotrowski in view of Blackketter teaches a first multimedia document is not scheduled at a reference clock value, a multimedia document renderer stands by until receipt of a predetermined reference clock value at which the first multimedia document is scheduled, i.e. the SMIL document media components are scheduled and synchronized using broadcasted trigger time codes (Piotrowski-Para. 31-38; Blackketter-Col. 5, lines 5-40).

Regarding claim 12, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when the first multimedia document is scheduled at the reference clock value but the first media data is not a rendering material used to render the first multimedia

document, the multimedia document renderer holds the first media data in standby and then uses the first media data when rendering a second multimedia document, whose rendering material is the first media data and which is scheduled at a predetermined reference clock value, i.e. rendering the multimedia document and its associated media data at the scheduled time (Piotrowski-Para. 28; Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 13, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia document renderer stops rendering the first multimedia document and then renders a second multimedia document scheduled at the predetermined increasing reference clock value when the second multimedia document has been stored, i.e. the trigger for the new multimedia document is executed and the document is rendered (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 14, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia document renderer stops rendering the first multimedia document and then receives and stores a second multimedia document scheduled at the predetermined increasing reference clock value when the second multimedia document has not been stored (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25).

Regarding claim 15, Piotrowski in view of Blackketter teaches transmitting a trigger, which contains a future presentation time attribute and a URL, prefetching the information resource contained at the URL, and executing the trigger at the future time (Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line 25). Therefore, Piotrowski in view of Blackketter teaches when a first multimedia document under rendering is not scheduled at a predetermined increasing reference clock value, i.e. the trigger has expired or the multimedia document is

finished (Blackketter-Col. 8, lines 15-49; Col. 10, lines 44-50), the multimedia

document renderer stops rendering the first multimedia document and then

receives and stores second media data used to render a second multimedia

document scheduled at the predetermined increasing reference clock value when

the second multimedia document has been stored, but the second media data

has not been stored, i.e. the second multimedia document has been prefetched

(Piotrowski-Para. 28; Blackketter-Col. 5, lines 5-40; Col. 6, line 60-Col. 7, line

25).

Regarding claim 16, claim is analyzed with respect to the combination of

claims 1 and 6.

Regarding claim 17, claim is analyzed with respect to claim 1.

Regarding claim 18, claim is analyzed with respect to claim 2.

Regarding claim 19, claim is analyzed with respect to claim 3.

Regarding claim 21, claim is analyzed with respect to claim 5.

Regarding claim 22, claim is analyzed with respect to claim 6.

Regarding claim 23, claim is analyzed with respect to claim 7.

Regarding claim 24, claim is analyzed with respect to claim 8.

Regarding claim 26, claim is analyzed with respect to claim 10.

Regarding claim 27, claim is analyzed with respect to claim 11.

Regarding claim 28, claim is analyzed with respect to claim 12.

Regarding claim 29, claim is analyzed with respect to claim 13.

Regarding claim 30, claim is analyzed with respect to claim 14.

Regarding claim 31, claim is analyzed with respect to claim 15.

Regarding claim 32, claim is analyzed with respect to the combination of claims 1 and 6.

Regarding claim 35, Piotrowski (Para. 42-45) in view of Blackketter teaches a computer-readable recording medium in which a program for executing the method of claim 17 in a computer is recorded.

Regarding claim 36, Piotrowski (Para. 32-37) in view of Blackketter teaches the media data generator/transmitter generates and transmits media data separately from the generated multimedia document, i.e. the multimedia document contains the URLs that link to the media data.

Regarding claim 37, Piotrowski (Para. 28, 32-37) in view of Blackketter teaches the media data receiver/storage receives and stores first media data separately from the multimedia document, i.e. the multimedia document contains the URLs that link to the media data.

8.   Claims 4, 9, 20, 25, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piotrowski in view of Blackketter and further in view of the Real-Time Streaming Protocol Specification (RFC 2326).

Regarding claim 4, Piotrowski in view of Blackketter teaches all elements of claims 1 and 3.

Piotrowski in view of Blackketter teaches communication with a network using well-known conventional communication protocols (Piotrowski-Para. 22).

Piotrowski in view of Blackketter does not clearly teach the predetermined data stream is composed of type information, time slot information, payload length information, and payload information, the type information indicates whether the predetermined data stream is for the reference clock value, the

multimedia document, or the media data, the time slot information indicates a
broadcasting time zone in which the reference clock value, the multimedia
document, or the media data is scheduled, the payload length information
indicates the length of the payload information, and the payload information is
substantial data information of the reference clock value, the multimedia
document, or the media data.

The RTSP Specification teaches an RTSP response can be composed of
type information, (Page 7; Page 30, Sec. 10.2; Page 49, Sec. 12.16, 12.18,
12.19; Page 52, Sec. 12.29; Page 53, Sec. 12.33; Page 79, Sec. C.1.1; Page 80,
Sec. C.1.2, C.1.3), time slot information, i.e. range of presentation or time of
availability (Page 52, Sec. 12.29; Page 81, Sec. C.1.5, C.1.6), payload length
information, i.e. content length (Page 30, Sec. 10.2; Page 49, Sec. 12.14), and
payload information, i.e. entity (Page 30, Sec. 10.2; Page 26, Sec. 8), Note: for a
more detailed description of the type information refer to Examiner's remarks in
the Response to Arguments section.

Therefore, it would have been obvious to one of ordinary skill in the art at
the time the invention was made to modify Piotrowski in view of Blackketter to
include teach the predetermined data stream is composed of type information,
time slot information, payload length information, and payload information, the
type information indicates whether the predetermined data stream is for the
reference clock value, the multimedia document, or the media data, the time slot
information indicates a broadcasting time zone in which the reference clock

value, the multimedia document, or the media data is scheduled, the payload

length information indicates the length of the payload information, and the

payload information is substantial data information of the reference clock value,

the multimedia document, or the media data, as taught by the RTSP

Specification, for the purpose of using a well-known and established

communication protocol.

Regarding claim 9, claim is analyzed with respect to claim 4.

Regarding claim 20, claim is analyzed with respect to claim 4.

Regarding claim 25, claim is analyzed with respect to claim 4.

Regarding claim 33, claim is analyzed with respect to the combination of

claims 1 and 4.

Regarding claim 34, Piotrowski in view of Blackketter in view of the Real-

Time Streaming Protocol Specification teaches the type information, the time slot

information, the payload length information, and the payload information are

sequentially arranged. It would have been obvious to one of ordinary skill in the

art at the time the invention was made because sequentially arranging the type

information, the time slot information, the payload length information, and the

payload information is a predictable variation of the RTSP standard. This
enables the receiver to quickly process the RTSP header fields.

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to JEREMY DUFFIELD whose telephone number is
(571)270-1643. The examiner can normally be reached on Mon.-Thurs. 8:00 A.M.-5:30
P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

22 January 2009

JSD

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427